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PATENT  
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Attorney Docket No. 05638.0018

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
Jörg BERNARD et al. ) Group Art Unit: 1761  
Application No.: 10/088,602 ) Examiner: L. Wong  
Filed: August 23, 2002 ) Confirmation No.: 6889  
For: HARD CANDY WITH IMPROVED )  
STORAGE STABILITY )

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

Sir:

**REPLY BRIEF UNDER BOARD RULE § 41.41**

Pursuant to Board Rule 37 C.F.R. § 41.41, Appellants present a Reply Brief to the Examiner's Answer dated November 13, 2007. This Reply Brief is due by Monday, January 14, 2008, and is timely filed.

**REMARKS**

I. **Enablement**

The Office maintains its rejection of claims 1-12 under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement. (Ex. Answer at 3.) It is the Office's position that Appellants have failed to discuss reduced water uptake or compare a reduced water uptake to any sort of standard. (*Id* at 4.) However, the claim language itself makes clear that the hard caramel has a reduced water uptake compared to hard caramels with 1,1-GPM and sorbitol content outside of the scope of the claims. Accordingly, there is no need for a standard because the skilled artisan can readily determine whether a hard caramel has the recited property.

In addition, the Office takes issue with the working examples because the hard caramels in the working examples include mannitol and GPS, in addition to 1,1-GPM and sorbitol. (*Id.*) Apparently, it is the Office's position that only a hard caramel consisting solely of 1,1-GPM and sorbitol would enable the claims. Such a position is inconsistent with the open language of the claims, which requires only that the hard caramel contain 1,1-GPM in an amount of 52 wt% to 60 wt% and sorbitol in an amount of 0.5 wt% to 3.5 wt%. Since those weight percentages do not sum to 100%, the claims clearly do not exclude additional ingredients in the hard caramels. Instead, they provide for particular percentages of two ingredients that the specification and two Rule 1.132 Declarations show result in the beneficial property of reduced water uptake.

For these reasons and those already of record, Appellants submit that the rejection under 35 U.S.C. § 112, first paragraph, is in error and should be reversed.

II. Obviousness

The Office also maintains its rejections of claims 1-12 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,578,339 to Kunz et al. ("Kunz") and U.S. Patent No. 6,248,386 to Willibald-Ettle et al. ("Willibald-Ettle"). (Ex. Answer at 3.) It continues to insist that "Appellant uses art recognized components for their art recognized function to obtain no more than expected results." (*Id.* at 6.) It dismisses the two Rule 1.132 Declarations that Appellants previously submitted as "not commensurate" and as providing results that are "no more than expected". (*Id.*) It further alleges that Declarations lack an analysis of their data. (*Id.* at 6, 7.)

Appellants traverse the Office's position for the reasons set forth in full in their Appeal Brief. They again note that, despite the Office's allegation to the contrary, they have presented data generated using hard caramels containing 1,1-GPM and sorbitol in weight percentages that span the recited ranges and they have compared those data to comparative examples containing 1,1-GPM and sorbitol weight percentages just outside the recited range. (Appeal Brief, pp. 17-18.) Accordingly, they have provided evidence commensurate in scope with the claims.

The statement in the Examiner's Answer that "[t]here is no analysis of the data" in either of the two Rule 1.132 Declarations is frankly puzzling to Appellants. (Ex. Answer at 6, 7.) As discussed in the Appeal Brief on pages 18-19, in each Declaration, Dr. Kowalczyk described the methods he used to prepare the samples, outlined the experimental conditions and parameters he measured, summarized the data in tables and graphs, and addressed the results for both the inventive and comparative examples. (Kowalczyk Rule 1.132 Declarations, ¶¶ 9-12.) Thus, contrary to the Office's

allegation, each Rule 1.132 Declaration contained not only data commensurate in scope with the claims, but also an analysis of that data.

Other than conclusory statements that the results appear to be “no more than expected,” the Examiner’s Answer also fails to provide any reasoned response to Appellants strong evidence of unexpected results. Not only the Rule 1.132 Declarations of record in this application, but also the specification as-filed, provide evidence of unexpected results when the 1,1-GPM and sorbitol content of a hard caramel is within the recited weight percents. Notably, the graph of water uptake shown in Figure 1 of the Second Kowalczyk Declaration is not linear. (Second Kowalczyk Declaration, Exhibit 2.) Instead, when either 0.7% or 2.0% sorbitol are combined with varying concentrations of 1,1-GPM, there is a minimum that appears at the recited range of 1,1-GPM. (*Id.*, Figure 1.)

After the filing of the Appeal Brief in this case, the Supreme Court reaffirmed that unexpected results and the absence of predictability are strong evidence of nonobviousness. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. \_\_, 82 USPQ2d 1385 (2007). Appellants respectfully submit that the evidence of record establishes that the claimed invention is nonobvious under *KSR Int’l*.

Predictability is a recurrent theme in the Supreme Court’s discussion in *KSR Int’l*. Not surprisingly, therefore, predictability is also a common element in the various rationales that the Office exemplifies in the revised guidelines that it issued following the decision in *KSR Int’l*. See M.P.E.P. §§ 2141-2143, 8<sup>th</sup> Ed., Rev. 6, (Sept. 2007). Thus, when a known problem has a limited number of predictable solutions that are within the technical grasp of the ordinary artisan such that success can be anticipated, then the

solution to the problem is likely obvious under 35 U.S.C. § 103(a). *KSR Int'l*, 550 U.S. \_\_, 82 USPQ2d at 1397; M.P.E.P. § 2143. Here, however, that is not the case. As Appellants have discussed in detail in their Appeal Brief, it was neither expected nor foreseeable that the combination of a narrow range of weight percentages of 1,1-GPM with a narrow range of weight percentages of sorbitol would result in hard caramels with the advantageous property of reduced water uptake, which in turn leads to improved stability in storage and a corresponding increase in the marketability of the hard caramel. The unexpected nature of the effect is illustrated most clearly in the graph in figure 1 of Exhibit 2, which shows a minimum rather than a linear effect on water uptake. The minimum is particularly striking when 2.0% sorbitol is combined with weight percentages of 1,1,-GPM in the claimed range, but it is also present when 0.7% sorbitol is used. Those data indicate that it was not predictable that water uptake in a hard caramel could be reduced by constraining the weight percentages of 1,1-GPM and sorbitol to within the claimed ranges. (Second Kowalczyk Declaration, ¶¶ 12-15.) Nor do any teachings in the cited references of *Kunz* or *Willibald-Ettle* predict that the weight percentages of 1,1-GPM or sorbitol could be manipulated to reduce the water uptake in a hard caramel. Thus, Appellants' finding could not have been predicted from the teachings of the cited references.

Further, *Kunz*'s teaching to exclude as much sorbitol as possible using chromatography methods emphasizes that Appellants' solution to include sorbitol in specific amounts does not reflect the pursuit of an "known option" leading to "an anticipated success." *KSR Int'l*, 550 U.S. \_\_, 82 USPQ2d at 1397. As noted, *Kunz* does not provide any basis for predicting that combining particular weight percentages of 1,1-

GPM with a 0.5 to 3.5 weight percentages of sorbitol results in hard caramels with reduced water uptake and a corresponding improvement in marketability. Instead, *Kunz* teaches processes that include a chromatography step to remove as much sorbitol, as well as other undesired sugars, as possible. In reaffirming the approach articulated in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), the Supreme Court in *KSR Int'l* specifically noted that when the prior art teaches away from combining known elements, discovering a fruitful way to combine them is more likely to be nonobvious. *KSR*, 550 U.S. at \_\_, 82 USPQ2d at 1395 ("The fact that [Adam's battery] elements worked together in an unexpected and fruitful manner [despite contrary warnings in the prior art] supported the conclusion that Adams's design was not obvious to those skilled in the art." (discussing *United States v. Adams*, 382 U.S. 39, 148 USPQ 479 (1966))). In this case, despite *Kunz*'s teaching to remove as much sorbitol as possible, Appellants have shown that when sorbitol is used in the narrow range of weight percentages claimed, then its combination with 1,1-GPM results in the beneficial and unexpected effect of reducing water uptake in the hard caramel.

For these reasons and those of record, Appellants again respectfully request reversal of the rejection under 35 U.S.C § 103(a).

### **III. Information Disclosure Statement**

The Examiner's Answer includes a paper stating that the Information Disclosure Statement filed August 28, 2007, fails to comply with the requirements of 37 C.F.R. § 1.98(a)(3) because it allegedly does not include a concise statement of the relevance of the non-English language document. (PTO-90C Attachment.) Appellants respectfully point out that, as noted in the Information Disclosure Statement, CA2230682, which is

believed to be related to JP11-507243, is in the English language.

If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: January 11, 2008

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